REMARKS

Claims 1-29 were pending in the subject application, with claims 2-10, and 12-19 withdrawn from consideration. Applicants have herein cancelled claims 1 and 20-21 without disclaimer or prejudice as to applicants' right to pursue the subject matter of these claims in the future, amended claims 11 and 22-29, and added new claims 30 and 31. Upon entry of this Amendment, claims 2-19 and 22-30 will be pending in the subject application.

Support for the amendments to claim 11 can be found in the specification as filed at, *inter alia*, page 14, lines 12-14, and original claim 21. Support for the amendments to claims 22-29 and for new claims 30 and 31 can be found in the specification as filed at, *inter alia*, page 14, lines 12-18.

The amendments to the claims introduce no new matter. Accordingly, applicants respectfully request entry of this Amendment.

Claims Rejected Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 11 and 20-29 under 35 U.S.C. 103(a) as being unpatentable over Bar-Tana 1 (U.S. Patent No. 6,303,653) and Bar-Tana 2 (U.S. Patent No. 6,284,903).

The Examiner asserted that Bar-Tana 1 teaches a method of treating Syndrome X by administering a therapeutically effective amount of 3,3,14,14-tetramethyl hexadecane-1,16-dioic acid (hereafter "M16"). The Examiner acknowledged that Bar-Tana 1 does not teach (1) the dose ranges recited in previously pending claims 1 and 11, (2) the dose range recited in previously pending claims 20-24 and (3) the dose regimen recited in previously pending claims 25-29.

The Examiner further asserted that Bar-Tana 2 teaches that 3,3,14,14-tetramethyl hexadecane-1,16-dioic acid is effective in reducing total cholesterol and plasma triglycerides and offers an adequate treatment mode for combined hypertriglyceridemia-hypercholesterolemia. The Examiner further asserted that Bar-Tana 2 teaches a daily dosage of 50-5000 mg, which will depend on the age, needs and tolerance of the individual patient.

The Examiner acknowledged that Bar-Tana 2 does not teach the dose range recited by the previously pending claims. However, the Examiner asserted that the dose ranges clearly overlap. The Examiner cited M.P.E.P. § 2144.05, and stated that in the case where the claimed ranges overlap or lie inside ranges disclosed in the prior art, a *prima facie* case of obviousness exists. The Examiner then asserted that it is obvious for those skilled in the art to optimize the dose regimen based on age, tolerance, and the individual needs of the patient as taught by Bar-Tana 2, thus resulting in the practice of claims 1, 11, and 20-29 with a reasonable expectation of success.

Applicants' Response

In response, for the purpose of expediting prosecution and without conceding the correctness of the Examiner's position, applicants have herein cancelled claims 1 and 20-21, and amended claim 11 which concerns the treatment of dyslipoproteinemia to recite "a range from about 30 mg per day to about 400 mg per day."

The claimed dosage range produces an unexpected result relative to the treatment of dyslipoproteinemia

Applicants attach hereto, as **Exhibit 1**, a Declaration of Dr. Jacob Bar-Tana, M.D., Ph.D., and inventor named on the subject application which provides evidence that applicants' now claimed range provides an unexpected benefit when used to treat dyslipoproteinemia. See, **Exhibit 1**, page 3. In contrast, the maximum effect of M16 administration relative to insulin resistance, where the measured effect is insulin sensitization, occurs at higher dosages than those recited in amended claim 11, namely 400 to 600 mg/day. See, **Exhibit 1**, page 5. The claimed benefit of M16 administration for treating dyslipoproteinemia could not have been predicted, and therefore would not have been obvious, from the disclosure of Bar-Tana 1 in view of the disclosure of Bar-Tana 2.

Further, Tables II and III of Bar-Tana 2 disclose plasma triglyceride, plasma cholesterol, plasma apolipoprotein C-III, plasma glucose, and plasma insulin levels observed in rats fed a diet containing 0.09% (w/w) of one of the following compounds: (1) γ-γ'-methyl hexadecane α,ω-dioic acid, (2) α-α'-methyl hexadecane α,ω-dioic acid, or (3) β-β'-methyl hexadecane α,ω-dioic acid (M16). See, Bar-Tana 2, column 5, line 35 to column 6, line 20. Importantly, Bar-Tana 2 does not disclose any data which shows the effects of varying doses of these compounds on plasma triglyceride, plasma cholesterol, plasma apolipoprotein C-III, plasma glucose, and plasma insulin levels in human. Bar-Tana 1 is similarly silent. Thus, one of ordinary skill in the art at the time of applicants' invention could not have predicted that the maximum effect of M16 administration in terms of treating dyslipoproteinemia would occur at a dosage between about 30 and about 400 mg per day. Further, one of ordinary skill in the art

could not have predicted that the maximum effect of M16 administration in terms of treating insulin resistance would occur at a dosage between about 400 and about 600 mg per day.

The Phase IIa human clinical study data disclosed in **Exhibit 1** demonstrates that the dose range of M16 which is maximally effective to treat dyslipoproteinemia is different than the dose range of M16 which is maximally effective to treat insulin resistance. As explained above, this result would not have been obvious to one of ordinary skill in the art at the time of applicants' invention from any combination of the disclosures of Bar-Tana 1 and Bar-Tana 2. See also, **Exhibit 1**, page 6.

Accordingly, applicants respectfully request that the Examiner reconsider and withdraw the rejection on the grounds of obviousness.